Catalytic Cracking of Some Asymmetric Diarylethanes 20-118-5-32/59

which had been found in previous publications by the authors (references 1,2). There are 7 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy neftyanoy institut im. I. M. Gubkina (Moscow Institute for Petroleum imeni I. M. Gubkin)

PRESENTED: October 8, 1957, by A. V. Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: October 8, 1957

Card 3/3

20-118-6-22/43

AUTHORS: Vayser, V. L., Ryabov, V. D.

TITLE: Alkylation of Naphthalene, β-Methyl-Naphthalene and Tetraline With Acetylene (Alkilirovaniye naftalina, β-metilnaftalina i tetralina atsetilenom)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol.118, Nr 6, pp.1128-1130 (USSR)

ABSTRACT: The authors who occupied themselves with naphthalene-alkylation (references 1, 2) were of opinion that this could not be achieved because the naphthalene-molecule consists of 2 cycles of different character, viz. of an aromatic and an alicyclic one. The authors of the present report, on the other hand, maintain that naphthalene has simply one stable molecule (rule by Fris). After various tests they were in a position to state that the solvent plays a decisive part, here. With alcohol the alkylation (catalyst H_3PO_4-BF_3) could not be effected, but it was achieved with chloroform and carbon tetrachloride. Alkylation of naphthalene. The conditions of reaction, together with the test results, (table 1) are

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20-118-6-22/43

Alkylation of Naphthalene, β-Methyl-Naphthalene and Tetraline With Acetylene

given in a kind of experimental part. The maximum experimental temperature was 50 to 55°C, the concentration of the catalyst 16 %. Molar ratio naphthalene: acetylene ~ 1,0. The alkylate forms at room-temperature a scarcely yellow transparent solidified mass, which is soluble in benzene, chloroform and ether. The alkylate could not be oxidized. The confirmation of the structure $C_{22}H_{18}$ (ethylidene-dinaphthyl) was achieved by means of its cracking. β-vinyl-naphthalene was isolated from the products of the latter. α-vinyl-naphthalene was not proved. Alkylation of β-methyl-naphthalene. The results given in table 2 were achieved under equal conditions. The product is ethylidene-di-β-methyl-naphthalene. It is a thick, green, viscous liquid which is soluble in benzene, chloroform, carbon-tetrachloride and n-heptane; insoluble in alcohol. Alkylation of tetraline. Temperature of reaction: 60 - 65°C. The test results are given in table 3. The alkylate boils at 214 to 216°/5 mm. The product is ethylidene-di-tetraline $C_{22}H_{26}$. The alkylate is similar to the previous one, but pale yellow. There are 3 tables, and 6 references, 3 of which are Soviet.

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20-118-6-22/43

Alkylation of Naphthalene, β-Methyl-Naphthalene and Tetraline With Acetylene

ASSOCIATION: Institute for Petroleum imeni I. M. Gubkin, Moscow
(Moskovskiy neftyanoy institut im. I. M. Gubkina)

PRESENTED: October 8, 1957, by A. V. Topchiyev, Academician

SUBMITTED: October 8, 1957

Card 3/3

SAMOYLOVICH, D. M., SMIRNITSKIY, V. A., SUKHOV, S. A., RYABOV, V. D. and RULEV, A. V.

"Appareil Pour Le Developpement Semi-Automatique Des Grands Empilements D'emulsion Nucleaire."

paper presented at the Second Intl. Colloquium on Corpuscular Photography. Montreal, 21 Aug - 7 Sep 1958.

Encl: B-3,114,647.

Cand

RYABOV, V.D.: Master Chem Sci (diss) -- "Catalytic cracking and some other transformations of 1, 1-diaryl ethanes synthesized on the basis of acetylene". Moscow, 1958. 16 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Inst of the Petroleum Chemistry and Gas Industry im I.M. Gubkin), 150 copies (KL, No 1, 1959, 114)

AUTHORS: Vayser, V. L., Ryabov, V. D. SOV/20-121-4-21/54

TITLE: Alkylation of Phenol by Acetylene Under Elevated Pressure (Alkilirovaniye fenola atsetilenom pri povyshennom davlenii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4, pp. 648 - 651 (USSR)

ABSTRACT: This reaction was for the first time investigated by the authors at atmospheric pressure (Refs 1 - 5). Water and ethanol were used as solvents for phenol (Ref 2). In the water medium which guarantees a more selective process of the reaction, phenol reacts with acetylene by a formation of acetaldehyde. The yield of 1,1,-(4,4'-dioxy-)-diphenyl ethane does not exceed 50% of the stoichiometrically computed amount. In order to clarify the influence of pressure and to find the optimal conditions of alkylation under pressure experiments were carried out in a rotating autoclave. By application of pressure the concentration of acetylene in the gas phase may be increased by the manyfold. A great disadvantage of the rotating autoclave is that it is not possible to maintain the pressure on the same level. An un-

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Alkylation of Phenol by Acetylene Under Elevated Pressure SOV/20-121-4-21/54

dangerous reaction can be brought about without a particular solvent for acetylene (nitrogen); vapors of the reaction mixture served for this purpose. The authors applied the mentioned method with full success. The autoclace (250 cm^3 capacity), made of stainless steel was loaded with a mixture of phenol, solvent, a catalyst H_3PO_4. BF_3 and HgO. Before loading the autoclave air was removed by blowing through acetylene. Then acetylene was pumped in until 20 atmospheres of excess pressure were reached. Figure 1A and table 1 show the dependence of absorption velocity of acetylene on the temperature. The higher the temperature the lower will be the pressure corresponding to a minimum velocity of absorption. The optimal conditions of reaction are 110 - 120° and 20 - 16 atmospheres of excess pressure. Table 2 shows the dependence of the yield of 1,1-(4,4'-dioxy) diphenyl ethane on the amount of the catalyst. The yield decreases only inconsiderably with a reduction of the amount of the catalyst. Figure 1 B shows the dependence of the absorption velocity of acetylene on the amount of the catalyst. The mentioned velocities

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Alkylation of Phenol by Acetylene Under Elevated Pressure SOV/2o-121-4-21/54

are about the same in all cases. Table 3 shows that a catalyst used once has about only half the activity of a fresh one. An addition of mercury restores its activity. There are 1 figure, 3 tables, and 7 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy neftyanoy institut im. I.M.Gubkina (Moscow, Petroleum Institute imeni I.M.Gubkin)

PRESENTED: March 22, 1958, by A.V.Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: March 20, 1958

Card 3/4

5(3) SOV/20-125-3-22/63

AUTHORS: Vayser, V. L., Ryabov, V. D.

TITLE: Alkylation of 1,1-($4,4^1$-Dioxy)-Diphenyl Ethane by Isobutylene (Alkilirovaniye 1,1-($4,4^1$-dioksi)-difeniletana izobutilenom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3, pp 547-548 (USSR)

ABSTRACT: The process mentioned in the title has been thoroughly investigated for mononuclear phenols. The alkylation of binuclear phenols is, however, not described. The authors point out again the production method and the properties of the phenol mentioned in the title (empirical formula $C_{14}H_{14}O_2$). The temperature of the reaction in question usually amounts to 60-90° (Ref 3) at which the phenol is melted and no solvent necessary. However, the reaction should be carried out at approximately 130° without solvent, in which case $C_{14}H_{14}O_2$ could be decomposed in acid medium. Therefore the authors chose 15-20° and used thioether as solvent. Isobutylene was obtained by means of dehydration of isobutyl alcohol over aluminum oxide

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SOV/20-125-3-22/63

Alkylation of 1,1-($4,4^1$)-Dioxy)-Diphenyl Ethane by Isobutylene

at 360°. The details of the reaction process are described. Table 1 shows the results of the initial experiments. The fraction 216-219°/5 mm is a solid yellowish substance which is well soluble in paraffin-, naphthene- and aromatic hydrocarbons. The substance obtained was analytically identified as 1,1-($4,4^1$-dioxy-$5,5^1$-di-tert.butyl)-diphenyl ethane (structural scheme given). The optimum reaction conditions: concentration of the catalysts 15 percentages by weight, temperature 18-20°, molar ratio isobutylene : dioxy diphenyl ethane = 4th supply velocity of the first 2-3 l/hour were determined by the second experimental series (Table 2). There are 2 tables and 3 Soviet references.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti im. I. M. Gubkina (Institute of Petroleum-chemical and Gas Industry imeni I. M. Gubkin)

PRESENTED: October 24, 1958, by A. V. Topchiyev, Academician

SUBMITTED: October 24, 1958

Card 2/2

SOV/120-59-4-11/50

AUTHORS: Samoylovich, D. M., Smirnitskiy, V. A., Sukaov, S. A., Ryabov, V. D., Rulev, A. V.

TITLE: An Installation for the Semi-Automatic Photographic Processing of Large Emulsion Stacks

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 58-62 (USSR)

ABSTRACT: This large scale and elaborate apparatus may be used to develop and fix a 4 litre stack in 4 to 6 days. The working area of the developing apparatus is 2m^2 and of the fixing apparatus 10 m^2. Five hundred emulsions each 400 μ thick may be developed in 2 to 3 days, while the fixing takes 45 to 50 hours or 75 to 80 hours, depending on whether the emulsions are glass-backed or not. The entire installation occupies an area of 200 m^2. Various gadgets are described, such as thermostated containers, plate holders, special fixing dishes, etc. The basic process of development and fixing employed is

Card 1/2

conventional and has been described by the authors in Refs 2-7. There are 7 figures and 7 references, of which 1 is English and the rest are Soviet.

SUBMITTED: May 14, 1958.

5.(3)

AUTHORS: Vayser, V. L., Ryabov, V. D., Ostroumova, A. K.

SOV/20-125-4-29/74

TITLE: Catalytic Condensation of 9-Methyl-(1,2), (7,8)-Dibenzoxanthene With Ammonia (Kataliticheskaya kondensatsiya 9-metil-(1,2), (7,8)-dibenzoksantena s ammiakom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 799-800 (USSR)

ABSTRACT: The authors obtained the substance mentioned in the title (I) by alkylation of β-naphthol with acetylene in an alcoholic solution in the presence of the catalyst $H_3PO_4 \cdot BF_3$ and one gram mercury oxide (Ref 1) (see scheme I). Compound I forms white crystals with a melting temperature of 173° and a boiling point of 268-269/8 mm, which are well soluble in acetone, acetic acid and ether and soluble on heating in n-heptane and benzene. The interaction between I and ammonia is explained by means of a scheme (Ref 2). A derivative of acridine 9-methyl-(1,2), (7,8)-dibenzo-9,10-dihydroacridine is to be expected as a result. The authors carried out this reaction on a device (Fig 1). Many experiments were necessary for determining the

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Catalytic Condensation of 9-Methyl-(1,2), (7,8)-Dibenzoxanthene With Ammonia

SOV/20-125-4-29/74

optimal conditions: temperature at 470°, at which on the one hand no unreacted product (as e. g. at 350-400°) is obtained and on the other hand, however, (I), a not decomposed product (as at 500°). The volume rate of the added benzene solution of (I) amounts to 0.4/hour. The reaction proceeds under milder conditions and yields better results if in 1 or 2 experiments an already used catalyst is taken. In the case of distilling the reaction products in most cases two fractions are obtained. A. 90 - 140°/2 mm which solidifies to a white crystalline mass and B. 240 - 290°/2 mm which becomes a yellow crystalline mass. After a careful fractionation and re-crystallization white crystals with a melting point of 112° and a boiling point of 131-132°/2 mm were produced from fraction A. The authors identified them as -β-naphthylamine. By similar operations light-yellow crystals were obtained from fraction B with a melting point of 213° and a boiling point of 251-253°/2 mm. These crystals were identified as 9-methyl-(1,2), (7,8)-dibenzo-(9,10)-dihydroacridine $C_{22}H_{17}N$. The authors were the first to obtain this substance. There are 1 figure and 1 Soviet reference.

Card 2/3

32.51

S/020/60/132/02/29/067
B011/B002

5.3400

AUTHORS: Vayser, V. L., Ryabov, V. D., Piryatinskiy, B. M.

TITLE: The Production of Vinyl Phenols by the Catalytic Cracking of Some Dioxydiarylalkanes

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 2, pp. 349-352

TEXT: The synthesis of a number of vinyl phenols hitherto has not been put into practice or has been little known. Data on this subject are contradictory. In their paper the authors suggested catalytic cracking of dioxydiarylalkanes in the presence of an aluminum silicate catalyst as a new method of producing vinyl phenols. For this purpose they used a continuously working apparatus (Fig. 1). The following substances were used for cracking at 550°: 1,1-(4',4"-dioxy)-diphenylethane (1), 1,1-(4',4"-dioxy-5',5"-dimethyl)-diphenylethane (2) and 2,2-(4',4"-dioxy)-diphenylpropane (3). The authors give the methods for the production of all three substances. The solvents used for cracking dioxydiphenylethane were acetone, sulfuric ether, phenol, and acetic acid mixed with benzene. The best results were obtained by using the aluminum silicate catalyst with 50% of Al_2O_3 and ether, or a mixture of acetic acid and benzene. On distillation of

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The Production of Vinyl Phenols by the Catalytic
Cracking of Some Dioxydiarylalkanes

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B011/B002

the catalysates almost always three fractions developed: I. phenol; II. phenol mixed with ethyl phenol and p-vinyl phenol; III. p-vinyl phenol with slight admixtures of ethyl phenol. Under the condition of selective cracking and of a high concentration of p-vinyl phenol, p-vinyl phenol crystallized from fraction III. in the form of palish green lamina. The yield in fraction III. and the conversion of dioxydiphenylethane into light products increased with a higher volume velocity of the dioxydiphenylethane solution. The authors describe some of the most successful experiments. After several processes of recrystallization of benzene, p-vinyl phenol crystals with a melting point of 71.5°-72° were obtained. Crude crystals dissolved easily in benzene, alcohol, and ether, and not so well in water. After left standing in the vacuum exsiccator, for a short time, the solubility was reduced due to polymerization. The crystals dissolved in lye turned the solution brown. An admixture of p-vinyl phenol to concentrated H_2SO_4 gave it a vividly red color. An admixture of a ferric chloride solution to the aqueous solution of p-vinyl phenol gave it a brownish green color. In the dark, p-vinyl phenol rapidly polymerizes into an indissoluble white resin. In a protective gas however, it keeps up to 50 hours and more. On cracking dioxydimethylethane (ethylidene-di-o-cresol) in acetic acid benzene, the following substances were obtained: o-cresol, 4-ethyl-o-cresol, and 4-vinyl-o-

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The Production of Vinyl Phenols by the Catalytic Cracking of Some Dioxydiarylalkanes

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B011/B002

cresol. The latter is a white, crystalline substance with a melting point of 73°-74°. It is soluble in ordinary solvents, and under the action of air transforms into a sticky resin from which after treatment with benzene the polymer of 4-vinyl-o-cresol precipitates in the form of an indissoluble white powder. Dioxydiphenylpropane (diphenylolpropane) was obtained from a commercial product supplied by GIPI-4 (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut-4, State Design and Planning Scientific Research Institute-4) by distillation and recrystallization. Cracking was the same as above, but was conducted in acetone-benzene. White, scale-like crystals of p-isopropenyl phenol with a melting point of 80.5° was obtained from the catalysate. Exposed to air they transformed into a red resin difficultly soluble in organic solvents. There are 1 figure and 7 references, 2 of which are Soviet.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti im. I. M. Gubkina (Institute of Petroleum-chemical and Gas Industry imeni I. M. Gubkin)

PRESENTED: November 5, 1959, by A. V. Topchiyev, Academician

SUBMITTED: November 5, 1959

Card 3/3

24016
S/080/61/034/006/019/020
D247/D305

5 3400

AUTHORS: Vayser, V.L., Ryabov, V.D., and, Piryatinskiy, B.M.

TITLE: The condensation of acetylene and phenol in the presence of cation exchange resin KU-2

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961, 1380 - 1381

TEXT: The aim was to discover more effective methods of synthesizing 4.4'dioxydiphenylethane (diphenol) using catalysts containing a mercury salt. Cationite KU-2 was chosen. Diphenol which is of great use in the synthesis of high molecular compounds is formed from the condensation of acetylene and phenol in aqueous and alcoholic solution in the presence of various acidic catalysts and mercuric oxide. The best catalyst was $H_3PO_4 \cdot BF_3$. Commercial cationite was treated with hydrochloric acid, washed with water, treated with an alcoholic solution of mercury salt, and dried. 1-2 % by weight of mercury salt was adsorbed on the surface of the

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D247/D305

The condensation of ...

catalyst. The experiments were carried out in a three-necked flask provided with a stirring rod, a reflux condenser, mercury seal and glass funnel for the addition of acetylene. Cationite (12 g), phenol (30 g) were placed in the flask and, at a temperature of 130°, acetylene was run in for 4 hours at the rate of 5 liters an hour. When the reaction was over the flask contents were vacuum-filtered to separate the catalyst, the latter washed with a small quantity of phenol and used again. The reaction products were distilled under pressure, the fraction of 4.4'dioxydiphenylethane collected at 210-220° and 8 mm Hg. A series of tests was done to study the variation in catalyst activity with time. Acetylene and phenol were condensed also in aqueous solution at 90°, other conditions remaining constant. 4.4'dioxydiphenylethane was obtained and it was shown that in this case acetaldehyde was formed at an intermediate stage. The advantages of KU-2, activated by mercury salts, as a catalyst in this reaction, are as follows: It avoids neutralization of the reaction product, it is active for a long time and easily separable, though the yield of diphenol is considerably lower than

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when using $H_3PO_4 \cdot BF_3$. Conclusions: Acetylene condenses with phenol in the presence of cationite KU-2, activated by mercury salts, at 90-130° forming 4.4'dioxydiphenylethane (yield 26 %); the catalyst is active for more than 30 hours, its activity rising to a constant level; in the presence of water, acetaldehyde is an intermediate product. There are 1 figure and 3 Soviet-bloc references.

SUBMITTED: April 16, 1960

Card 3/3

VAYSER, V.L.; RYABOV, V.D.; PANIDI, I.S.

Ammonolysis of 1,1-di(chlorophenyl)-ethane. Dokl. AN SSSR 140
no.1:118-121 S-O '61. (MIRA 14:9)

1. Institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M.
Gubkina. Predstavleno akademikom A.V.Topchiyevym.
(Ethane) (Ammonolysis)

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15 8121

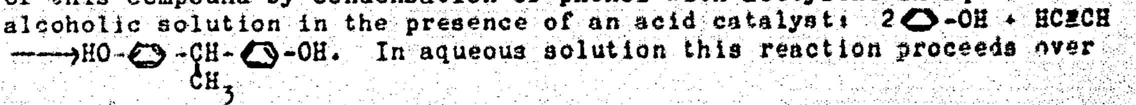
25050
S/064/61/000/007/002/005
B124/B206

AUTHORS: Vayser, V. L., Ryabov, V. D., Bolotin, B. M.

TITLE: Synthesis of polycarbonates and epoxy resins on the basis of 1, 1-(4, 4-dioxy)-diphenyl ethane

PERIODICAL: Khimicheskaya promyshlennost', no. 7, 1961, 24 - 25

TEXT: For the manufacture of epoxy resins, polycarbonates etc., the authors propose, instead of diphenylol propane, another diphenol, i. e., 1,1-(4,4-dihydroxy)-diphenyl ethane (D), which had already been produced in good yield in 1904 by condensation of phenol with acetaldehyde. In previous papers (Ref. 2: DAN SSSR, 97, No. 4 (1954); Ref. 3: DAN SSSR, 103, No. 5 (1955); Ref. 4: Sbornik trudov 9-y nauchno-tekhnicheskoy konferentsii Moskovsk. neft. inst. 1954) the authors described the synthesis of this compound by condensation of phenol with acetylene in aqueous c- alcoholic solution in the presence of an acid catalyst: $2\bigcirc\text{-OH} + HC\equiv CH \longrightarrow HO\text{-}\bigcirc\text{-}\underset{CH_3}{CH}\text{-}\bigcirc\text{-OH}$. In aqueous solution this reaction proceeds over acetaldehyde (Ref. 5: V. L. Vayser, V. D. Ryabov. DAN SSSR, 100, No. 2 (1955)). A number of cationites and aluminum silicates are being



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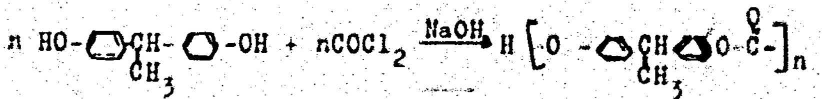
B124/B206

Synthesis of polycarbonates...

investigated as catalysts for this reaction. It was the author's aim to find out whether the dihydroxy-diphenyl ethane obtained from acetylene and phenol can be used for the synthesis of polycarbonates and an epoxy resin. The polycarbonates were synthetized by condensation of D with phosgene:



$n\,HO-C_6H_4-\underset{CH_3}{CH}-C_6H_4-OH + nCOCl_2 \xrightarrow{NaOH} H\left[O-C_6H_4-\underset{CH_3}{CH}-C_6H_4-O-\overset{O}{C}-\right]_n + 2nHCl$, applying

direct phosgenization in the presence of NaOH or pyridine, or phosgenization at the interface of two phases. D, twice recrystallized from benzene, with a melting point of 123°C, was used for the experiments. Direct phosgenization was carried out in a three-necked flask with a mercury seal, mixer and reflux condenser. An alkaline solution of D, methylene chloride, and a catalyst were added into the flask, and phosgene was passed through. After termination of the reaction, the reaction mass is mixed for another hour, methylene chloride is removed by steam distillation, the polycarbonate obtained is rinsed with hot water up to neutral reaction, and dried at 80°C. The experimental results are given in Table 1, which shows that the mean molecular weight and the melting point of the polycarbonate rise with decreasing reaction temperature. Phosgenization in the presence of pyridine was carried out as follows: 11 g of D, dissolved in methylene
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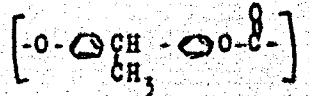
B124/B206

Synthesis of polycarbonates...

chloride, and 24 g of pyridine were treated with phosgene for one hour at 20-35°C, nitrogen was blown through after termination of the reaction, pyridine hydrochloride was decomposed by aqueous lye, the polycarbonate obtained was treated with steam and rinsed with hot water up to neutral reaction. A total of 8 g of polycarbonate with a molecular weight of 4100 was obtained from 11 g of D. No positive results were obtained by phosgenization at the interface of the phosgene solution in chloro benzene and the basic solution of D. For polycarbonates obtained by direct phosgenization in the presence of NaOH, melting point, molecular weight (viscosimetric) and hydroxyl number were determined; they were submitted to elementary analysis and fractionated. The hydroxyl number of the polycarbonates was determined by acetylating with acetic anhydride in the presence of pyridine and titration of the acetic acid formed with 0.5 N aqueous alkali against phenol phthalein; the hydroxyl content amounted to 3.26%. The results of the elementary analysis (73.76%C, 5.16%H; and 73.98%C, 5.86%H) are very close to those calculated from the formula



$\left[-O-C_6H_4-\underset{CH_3}{CH}-C_6H_4-O-\overset{O}{\overset{\|}{C}}-\right]$

(75% C and 5% H). The polycarbonates were fractionally precipitated by methanol from

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S/064/61/000/007/002/005
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a 1.5% solution in methylene chloride, two fractions with molecular weights of 29500 and 43600 being obtained. The ЭА-1 (EA-1) epoxy resin was also synthetized from D, with the same polycondensation degree as the Э-40 (E-40) resin produced from diphenylol propane, and the properties of the two resins were compared. For the resin obtained, the molecular weight was determined according to Rast to be 455, the epoxy number to be 19,8%, and the droplet-forming temperature according to Ubbelohde to be +32°C. Comparative tests of varnish coatings obtained from the EA-1 and E-40 resins were made at the institut ГИПИ-4 (Institute GIPI-4); the results are given in Table 2. There are 2 tables and 5 Soviet-bloc references.

Card 4/6

RYABOV, V. D., BARINOVA, Ye. S., SAMOYLOVICH, D.M., ARDASHEV (fnu), and YUKHNOVSKAYA, O.P.

"On the chemical ripening of the R emulsion"

Fourth International Colloquium on Photography (Corpuscular) - Munich, West Germany, 3-8 Sep 62

S/204/62/002/004/013/019
E075/E435

AUTHORS: Vayser, V.L., Ryabov, V.D.

TITLE: Preparation of "bisphenols" from acetylene hydrocarbons

PERIODICAL: Neftekhimiya, v.2, no.4, 1962, 577-584

TEXT: A method is presented of the preparation of "bisphenols" based on the alkylation of phenol with acetylene and its homologues (methyl acetylene and phenyl acetylene) in the presence of acidic catalysts. The alkylation was conducted with an alumino-silicate catalyst activated with mercury acetate and sulphate. The catalyst was treated thermally before use, its activity increasing with the temperature of the treatment up to 850°C. The best conditions for the reaction are: temperature - 120°C, quantity of catalyst - 16% of the phenol taken, acetylene feed rate - 4 litres/hour per 120 g of phenol and the ratio of phenol to acetylene equal to 5:1. Under these conditions the yield of 1,1-bis(oxyphenyl)-ethane is 86.5% of the reacted phenol. The product is a mixture of p,p-, o,p- and o,o-isomers. The alkylation of phenol with methyl acetylene was successful only in presence of molecular compounds of BF_3 and

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Preparation of "bisphenols" ... S/204/62/002/004/013/019
E075/E435

phosphoric acid, acetic acid or diethylether. The best selectivity was obtained by using $BF_3 \cdot H_3PO_4$ at 80 to 85°C. The yield of "bisphenol" increases with decreasing catalyst concentration, reaching 50% of the reacted methylacetylene for 1 to 2% of the catalyst (by weight of phenol taken). The yield of "bisphenol" depends slightly on temperature and the optimum ratio of phenol to methyl acetylene is 5:1. The main product of the reaction is 2,2-bis-(oxyphenyl)-propane. The alkylation of phenol with phenyl acetylene was carried out with $BF_3 \cdot (CH_3CH_2)_2O$ as catalyst. The yield of "bisphenol" increases with the increasing quantity of catalyst, reaction time and the excess of phenol in relation to the theoretical amount. Preliminary experiments indicate that this "bisphenol" can be used to produce high quality resins. There are 1 figure and 5 tables.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M.Gubkina (Moscow Institute of the Petrochemical and Gas Industry imeni I.M.Gobkin)

Card 2/2

RYABOV, V.D.; VAYSER, V.L.; CHZHU YUY-TUN [Chu Yü-t'ung]

Reaction on toluene with phenylacetylene. Dokl. AN SSSR 147 no.3:639-642 N '62. (MIRA 15:12)

1. Institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M. Gubkina. Predstavleno akademikom A.V. Topchiyevym.
(Toluene) (Benzene)

VAYSER, V. L.; RYABOV, V. D.

Preparation of "diphenols" on the basis of acetylenic hydrocarbons. Neftekhimia 2 no.4:577-584 Jl-Ag '62.
(MIRA 15:10)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I. M. Gubkina.

(Phenol condensation products) (Acetylene)

RYABOV, V.D.; VAYSER, V.L.

Condensation of certain phenol ethers with acetylene. Trudy MINKHiGP no.37:109-116 '62. (MIRA 17:3)

SOPKINA, A.K.; RYABOV, V.D.

Use of thin-layer chromatography for the analysis of certain diphenols. Zhur. anal. khim. 19 no.5:615-618 '64.
(MIRA 17:8)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina, Moskva.

L 11517-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 DJ/RM

ACCESSION NR AT5006928 S/2982/64/000/051/0030/0037

25

AUTHOR: Vayser, V. L. (Deceased); Ryabov, V. D.; Polikarpova, A. M.

24

TITLE: Synthesis of some m-dibromoalkylbenzenes

B+1

SOURCE: Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 51, 1964. Neftekhimiya, neftekhimicheskiye protsessy i neftepererabotka (Petroleum chemistry, petrochemical processes and oil refining), 30-37

TOPIC TAGS: alkylbenzene synthesis, dibromoalklybenzene, polyphenyl ester, lubricant, bromination, Sandmeyer reaction

ABSTRACT: New or modified methods were developed for the synthesis of m-dibromobenzene, 3,5-dibromotoluene, 2,4-dibromopropylbenzene and 2,4-dibromoisoamylbenzene as possible intermediates in the production of polyphenyl ester lubricants. m-Dibromobenzene was prepared from aniline via acetanilide by one-step bromination of the latter in glacial acetic acid, saponification of 2,4-dibromacetanilide and deamination of 2,4-dibromoaniline. Bromination of p-toluidine to dibromo-p-toluidine and deamination gave 3,5-dibromotoluene. 2,4-Dibromopropylbenzene was obtained via propylbenzene by nitration to a mixture of o- and p-nitropropylbenzene; bromination of the nitro isomers in

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L 33537-65

ACCESSION NR: AT5006928

the presence of iron powder at approximately 80C in the dark to retard bromination of the alkyl; vacuum fractionation with decomposition of derivatives formed by side chain bromination; and reduction of bromonitropropylbenzenes with exchange of amino groups for bromine by Sandmeyer's reaction to prepare 2,4-dibromopropylbenzene. 2,4-Dibromoisoamylbenzene was prepared via a similar route. Orig. art. has: 3 formulas.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow (Petrochemical and gas industry institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, FP

NO REF SOV: 002 OTHER: 010

Cord 2/2

[illegible], A.A.; [illegible], V.D.

Interaction of methylacetylene with [illegible]. Neftekhimiia 4 no.3:[illegible] [illegible] '64. (MIRA 18:[illegible])

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I.M.Gubkina.

L 62084-65 EPF(c)/EWT(m) Pr-4 RM

ACCESSION NR: AP5016838

UR/0204/65/005/003/0335/0339
547.314.2:547.562:542.952.53

AUTHORS: Ryabov, V. D.; Sopkina, A. K.; Vesova, V. S.

17
16
B

TITLE: Alkanization of phenol by isopropylacetylene

SOURCE: Neftekhimiya, v. 5, no. 3, 1965, 335-339

TOPIC TAGS: alkane, alkylphenol, chemical reaction, acetylene

ABSTRACT: The reactions of phenol with isopropylacetylene were studied in an effort to determine the possibility of separating some intermediate product such as alkenylphenol or any low-molecular compound. The absence of these compounds among the reaction products was explained by the great speed of their subsequent transformation (polymerization, condensation with phenol). The reaction proceeded at 55-80C for 2-3 hours in a three-outlet flask equipped with a mechanical mixer, a reverse cooler, and a piston burette. Liquid isopropylacetylene was poured under a layer of the phenol-catalyst mixture at a constant velocity and stirred. Isopropylacetylene had a boiling point temperature 26.5-27.5C, n_D^{20} 1.3738, bromine number 228. The reaction mixture was stirred for some time at constant temperature until it became dark red. The catalyzers and the excess of phenol were washed off, the raw

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ACCESSION NR: AP5016838

product was dried over magnesium sulfate, and was vacuum distilled into the fractions 70-130C and 215-250C. The composition of these fractions was then studied. It was noted that the inhibition by the isopropyl group lowered the reaction capacity of the binary bond 3-methyl-2-(n-oxyphenyl)-butene-1 (I), and made possible its separation from the end products. The presence of beta-isopropylcoumaran (V) was explained by the ring formation of 3-methyl-2-(o-oxyphenyl)-butene-1 (II) formed together with 3-methyl-2-(n-oxyphenyl)-butene-1 at the first reaction stage. The separated products of the second stage were: two isomeric diphenols: 2-methyl-3.3-bis-(n-oxyphenyl)-butane (III), and 2-methyl-3-(o-oxyphenyl)-3-(n-oxyphenyl)-6-butane (IV). Orig. art. has: 1 table and 3 figures.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I. M. Gubkina (Moscow Institute of the Petrochemical and Gas Industry)

SUBMITTED: 21Mar64
ENCL: 00
SUB CODE: OC, GC

NO REF SOV: 005
OTHER: 000

Card 2/2

[illegible], A.K.; RYABOV, V.D.

Reaction of tert-butylacetylene with phenol. Zhur. org. khim. 1 no. 12:2144-2166 D '65 (MIRA 19:1)

1. Moskovskiy institut neftokhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina. Submitted October 29, 1964.

RYABOV, V.D.

Automation of the development of nuclear emulsions. Prib. i tekh. eksp. 10 no.5:230-231 S-O '65. (MIRA 19:1)

1. Institut atomnoy energii Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR. Submitted Sept. 8, 1964.

[illegible]V, V. V.

37283. K opredeleniyu ptits i sooruzheniya cheloveka v stepi: Trudy Voronezh. Gos. Zapovednika, Vyp. 4, 1949, s. 233-46. Bibliogr: 14 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

RYABOV, V.F.; BOLYSHEV, N.N.

Present state of the abundance of steppe marmots in some regions of the Virgin Territory. Zool. zhur. 42 no.4:602-608 '63.
(MIRA 16:7)

1. Biologico-Pedological Faculty, The State University of Moscow.

(Virgin Territory—Marmots)

[illegible], V. F.

37282. Z dosvidu [illegible] stupnykh [illegible] dev. [illegible]. Po [illegible] [illegible] Zaporizh[illegible]. Podpis': A. (I) F. [illegible]. Trudy Naukovo[illegible] Dos. Zaporizh[illegible], Vyp. 2 1949, s. 151-15[illegible]—Bibliogr: 15 Nazv

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

BUKHVALOV, I.B.; KIRPICHNIKOVA, Ye.S.; RYABOV, V.F.; SHCHERBAKOVA, E.G.

Different blood types in birds; based on materials collected in the steppe districts of the Virgin Territory. Vest. Mosk. un. Ser. 6; Biol., pochv. 19 no.3:51-55 My-Je '64. (MIRA 17:12)

1. Kafedra tsitologii i gistologii Moskovskogo universiteta.

RYABOV, V.F.

Seasonal distribution and migration of the European teal.
Ornitologiia no.3:384-395 '60. (MIRA 14:6)
(Ducks) (Birds—Migration)

RYABOV, V.F.

Feeding habits of the hoopoe (Upupa E. epops L.) in the steppes of North Kazakhstan. Vest. Mosk. un. Ser. 6: Biol., pochv. 20 no.6:13-15 N-D '65. (MIRA 19:1)

1. Kafedra zoologii pozvonochnykh Moskovskogo gosudarstvennogo universiteta. Submitted December 14, 1964.

L 29126-66 EWT(m)

ACC NR: AP6019404 SOURCE CODE: UR/0240/65/000/011/0086/0091

AUTHOR: Petrukhin, N. V. (Chemical engineer); Pokrovskiy, S. I.; Tikhomirov, V. K.; Ryadov, V. G. (Candidate of medical sciences; Moscow)

65

B

ORG: none

TITLE: Determination of radiocesium 19 in environmental objects

SOURCE: Gigiyena i sanitariya, no. 11, 1965, 86-91

TOPIC TAGS: cesium, radioisotope, radiometry, radiation chemistry, scintillation spectrometer

ABSTRACT: The article is essentially a review of the literature. After briefly discussing the distribution and biological characteristics of Cs^{137}, the authors describe in detail methods of preparing samples (liquids, solids, and soil) for analysis. The various radiochemical methods of determining radiocesium (12 are listed with the published source where they were first described) are based on the principle of precipitation with specific reagents and an isotopic carrier, followed by measurement of the activity of the precipate. The carrier generally used is stable Cs, which as a chloride or ritrate solution is added to the solution obtained in the course of preparing the sample for analysis. Radiometry of the preparations is the final procedure. The author notes that spectrometric methods are coming into increasing use. They require crystalline or liquid scintillation elements with analyzers of different kinds of pulses as recording devices. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 18, 07 / SUBM DATE: 11May65 / ORIG REF: 013 / OTH REF: 028

UDC: 614.73:546.176.02.137-074

Card 1/1 cc

[illegible], Vasiliy Il'ich; BAYSKIY, I.E., retsenzent; [illegible], I.G., retsenzent; [illegible], A.L., red.

[Practical study of electrical equipment] Prakticheskie zaniatiia po elektrooborudovaniiu. Moskva, Izd-vo Pishchevaia promyshlennost', 1964. 135 p. (MIRA 17:8)

VYSHELESSKIY, Aleksandr Nikolayevich, prof.; GORDON, L.I., dotsent, kand.tekhn.nauk, retsenzent; IL'IN, Ye.V., prepodavatel', retsenzent; RYABOV, V.I., prepodavatel', retsenzent; CHERVYAKOVA, L.S., red.; MEDRISH, D.M., tekhn.red.

[Heat equipment for food processing in public eating establishments] Teplovoe oborudovanie predpriiatii obshchestvennogo pitaniia. Moskva, Gos.izd-vo torg.lit-ry, 1960. 380 p. (MIRA 14:3)

1. Leningradskiy tekhnikum obshchestvennogo pitaniya (for Il'in).
2. Moskovskiy tekhnikum obshchestvennogo pitaniya (for Ryabov).
(Restaurants, lunchrooms, etc.--Equipment and supplies)

RYADOV, V.I., Cand Biol Sci -- (diss) "Biological effect of X-rays on the physiological functions of the organism of sheep." Mos, 1958. 12 pp (All-Union Inst of Experimental Veterinary. All-Union Order of Lenin Acad of Agr Sci im V.I. Lenin), 110 copies (KL, 25-58, 127)

VYSHELESSKIY, A.N., prof.; CHUKAYEV, D.S., prof.; KOMAROV, N.S., prof.; SENATOV, I.G., dots.; RYABOV, V.I.; NEUGODOV, Ye.V.; GOROZHANKIN, M.G.; GAN, M.B., dots., kand. tekhn. nauk; retsenzent; RAYSKIY, I.D., dots., retsenzent; LIKHAREVA, N.V., kand. tekhn. nauk, retsenzent; SHCHEGLOV, V.P., kand. tekhn. nauk, retsenzent; RUDOMETKIN, F.I., inzh., retsenzent; BAULIN, V.A., red.; EL'KINA, E.M., tekhn. red.

[Equipment of public food service establishments; electrical, refrigerating, and sanitary equipment] Oborudovanie predpriiatii obshchestvennogo pitaniia; elektricheskoe, kholodil'noe i sanitarno-tekhnicheskoe oborudovanie. Moskva, Gos.izd-vo torg. lit-ry, 1961. 447 p. (MIRA 15:3)

(Restaurants, lunchrooms, etc.--Equipment and supplies)

GUBERGRITS, A.Ya., prof.; LESHCHINSKIY, L.A.; RYABOV, V.I.

Study of the absorptive capacity of some sections of the gastrointestinal apparatus in clinical conditions. Terap.arkh. no.8: 29-37 '62. (MIRA 15:12)

1. Iz gospital'noy terapevticheskoy kliniki (nauchnyy rukovoditel' - prof. A.Ya. Gubergrits) Izhevskogo meditsinskogo instituta i fakul'tetskoy terapevticheskoy kliniki Donetskogo meditsinskogo institutaimeni A.M. Gor'kogo.
(ALIMENTARY CANCAL) (ABSORPTION (PHYSIOLOGY))

LESHCHINSKIY, L.A., kand.med.nauk ; RIABOV, V.I.

Method for a clinical investigation of the absorption capacity of the duodenum and of portal circulation rate [with summary in English]. Terap.arkh. 31 no.3:62-68 Mr '59. (MIRA 12:4)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. A.Ya. Gubergrits) Izhevskogo meditsinskogo instituta.
(DUODENUM, physiol.
absorp. rate, determ. (Rus))
(VEINS, PORTAL SYSTEM, physiol.
circ. rate, determ. (Rus))

RYABOV, V.K.

Axinite from the Ezop Range. Soob.DVFAN SSSR no.10:254-256 '59.
(MIRA 13:11)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.
(Ezop Range--Axinite)

RYABOV, V.K.; CHMYREV, V.M.

Cassiterite from tin ores of the Ezop Range. Soob.DVFAN SSSR no.10:256-259 '59. (MIRA 13:11)

1.Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.
(Ezop range--Cassiterite)

RYABOV, V.K.

Use of the thermosonic method in casserite research for determining the genetic types of tin ore deposit. Soob.DVFAN SSSR no. 15:131-132 '62. (MIRA 17:9)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.

RYABOV, V.K.

Stilpnomelane in the tin ore deposit at Shirotnyy Spring (Ezop Range). Soob.DVFAN SSSR no.12:140-144 '60. (MIRA 13:11)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.
(Ezop Range--Tin ores) (Stilpnomelane)

DEMENT'YEV, B.A., kand. tekhn. nauk; BERESHIN, V.K., inzh.; RYABOV,
V.M., inzh.; PARAMESVARAN, M.P., inzh.

Study of laws governing phase distribution in a water and
steam mixture under nonsteady conditions. Trudy MEI
no.63 183-192 '65. (MIRA 18:12)

SERGEYEV, N.P.; RYABOV, V.M., inzhener, retsenzent; ZVEGINTSEVA, K.V. inzhener, ~~redaktor;~~ GOLOSIN, S.Ya., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor

[Resistance welding; a welder's manual] Kontaktnaia svarka; Pamiatka dlia svarshchika. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 91 p. (MLRA 8:10)
(Electric welding)

DEMENT'YEV, B.A., kand.tekhn.nauk; LOGINOV, A.A., inzh.; RYABOV, V.M., inzh.

Study of a cyclone separator in a loop with natural circulation. (MIRA 14:8)
Teploenergetika 8 no.5:52-57 My '61.

1. Moskovskiy energeticheskiy institut.
(Separators (Machines))

RYABOV, V.M.

Shortcomings in the design of the KDVR-6,5-13 boilers. Prom.energ. 17 no.7:59 Jl '62. (MIRA 15:7)

(Boilers)

BELYAYEV, V.I.; PAVLOVA, I.S.; RYABOV, V.M.

Methodology of dispersing clouds over large areas. Izv. AN SSSR.
Ser. geofiz. no.9:1410-1416 S '63. (MIRA 16:10)

MANSHILIN, V.V.; MANAKOV, N.Kh.; AGAFONOV, A.V.; VASILENKO, V.P.; MASLOV, I.Ya.; KNYAZEV, V.S.; Prinimali uchastiye: BELOUSOVA, I.V.; BEREZOVSKIY, V.D.; BOL'SHAKOVA, K.A.; YEMEL'YANOV, A.A.; ZEFIROVA, Ye.G.; NEMETS, L.L.; OKINSHEVICH, N.A.; RYABOV, V.M.; STEPANENKO, I.A.; STOLYARENKO, Ye.G.; SOLOTSINSKIY, S.Ye.; KHRAMOV, A.Ye.; CHELOGUZOVA, Ye.F.

Engineering development of a new system of catalytic cracking in a fluidized bed. Khim.i tekh.topl.i masel 7 no.6:41-50 Je '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

(Cracking process)
(Fluidization)

MANSHILIN, V.V.; AGAFONOV, A.V.; MANAKOV, N.Kh.; VASILENKO, V.P.; MASLOV, I.Ya.; KNYAZEV, V.S.; STEPANENKO, I.A.; Prinimali uchastiye: VAYL', Yu.K.; NEMETS, L.L.; BELOUSOVA, I.V.; STOLYARENKO, Ye.G.; YEMEL'YANOV, A.A.; RYABOV, V.M.; BEREZOVSKIY, V.D.; ZEFIROVA, Ye.G.; CHELOGUZOVA, Ye.F.; SOLOTSINSKIY, S.Ye.; BOL'SHAKOVA, K.A.; KHRAMOV, A.Ye.

Catalytic cracking of raw heavy distillates on a microspheric catalyst of Troshkovskiy clay. Khim. i tekh. topl. i masel. 8 no.3:1-6 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Cracking process) (Catalysts)

RYABOV, V. N.

Ldr., Expedition to the Salsk Steppes (Rostov Oblast), Inst. General & Communal Hygiene, Dept. Hygiene, Microbiology & Epidemiology, Acad. Med. Sci., -c1949-.

"Problems of Hygiene and Sanitary Practice Discussed in the Twelfth All*Union Convention of Hygienists, Epidemiologists, Microbiologists and Infection Specialists," Sov. Med., No.1, 1948;

"The Sanitary Requirements of a Kolkhoz Livestock Farm," Fel'dsher i Akusher., No. 3, 1949;

"Field Camps in Kolkhozes," ibid., No. 4, 1949;

"Communal Bath Houses at Kolkhozes," ibid., No. 11, 1949.

RYABOV, V. N.

34113. Obshchestvennyye buni v kolkhozakh. Fel'dsher i akusherka, 1949, No. 11, s. 42-49

SO: Knizhuaya, Letopis' Vol. 7, 1955

RYABOV, V.N.

Problems of sanitation and anti-epidemic services at the construction projects of hydroelectric power plants and canals. Zhur.mikrobiol.epid.i immun. no.2:12-16 F '53. (MLRA 6:5)
(Public health)

RYABOV, V.N.; GLASKO, N.M., redaktor; BEL'CHIKOVA, Yu.S., tekhnicheskiy redaktor.

[How to construct a village bathhouse] Kak ustroit' sel'skuiu baniu. Izd. 3-e, ispr. Moskva, Gos. izd-vo med. lit-ry, 1954.
19 p. (MLRA 7:11)
(Baths, Public)

FEDYNSKIY, V.I.; RYABOV, V.N.; LUNTS, L.B.

[Hygiene of a collective farm village] Gigiena kokhoznogo sela. Izd. 2-e izd.Moskva, Medgiz, 1954. 244 p. (MLRA 8:4D)

RYABOV, V.N., kand.med.nauk

Reviews of "Sanitation in the collective farm village" by A.IU. IAvnel', "Hygienic aspects of the collective farmer's house and lot" by O.V. Chaikovskaia, "Sanitary facilities of the collective farm field camp" by L.V. Poller, "Protect wells and other sources of water from contamination" by A.I. Valov, and "Keep a clean house and lot" by A.I. Valov. Reviewed by V.N. Riabov.
Gig. i san. 23 no.6:86-89 Je'58 (MIRA 11:7)

(PUBLIC HEALTH,RURAL--BOOK REVIEWS)
(IAVENL', A.IU.)
(CHAIKOVSKAIA, O.V.)
(POLLER, L.V.)
(VALOV, A.I.)

RYABOV, V. N., VASIL'KOVA, Z. G., NIKOLAYEVA, K. K., MATVEYEV, P. N.,
FERTSOVSKAYA, M. I., SUKHOVA, M. N., KHAZANOV, M. I., GULYAYEV, N. F.

"Basic hygienic premises in the field of legislature on the sanitary protection of the soil of populated places."

report submitted at the 13th All-Union Congress of Hygenists, Epidemiologists and Infectionists, 1959.

RYABOV, V.N., kand.med.nauk

Principal aspects of the sanitary protection of soil in populated areas. Vest.AMN SSSR 14 no.8::54-60 '59.
(MIRA 12:11)

1. Institut obshchey i kommunal'noy gigiyeny imeni A.N.Sysina AMN SSSR.

(SOIL)
(SANITATION)

Dept. Hygiene, Microbiology & Epidemiology
Pogodinskaya Ul. No. 33 Moscow

RYABOV, V.N.

"Hygienic principles in providing facilities for settled areas on collective farms" by F. S. Okolov, I. N. Annikov. Reviewed by V. N. Riabov. Gig. i san. 24 no.5:88-89 My '59. (MIRA 12:7)
(HOUSING, RURAL--HYGIENIC ASPECTS)
(OKOLOV, F.S.) (ANNIKOV, I.N.)

NEDOGIBCHENKO, M.K.; RYABOV, V.N., kand.med.nauk

Congress on Communal Hygiene in Prague. Gig. i san. 25 no. 12:86-92 D '60. (MIRA 14:2)

1. Iz Gosudarstvennoy sanitarnoy inspektsii SSSR i Instituta obshchey i kommunal'noy gigiyeny imeni A.N. Sysina AMN SSSR. (SANITATION—CONGRESSES)

BARABOY, Vilen Abramovich; RYABOV, V.N., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Hygiene conditions of new dwellings in the virgin lands] Gigiena novykh zhilishch na tselinnykh zemliakh. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 125 p. (MIRA 14:9)
(APARTMENT HOUSES--SANITATIONS)

PEROTSKAYA, A.S.; RYABOV, V.N., kand.med. nauk; CHERNAYENKO, T.D.

Experience in conducting a seminar for public health physicians and laboratory personnel of sanitary and epidemiological institutions on problems of sanitary protection of soil in populated areas. Gig. sanit. 28 no.2:107-108 '63 (MIRA 17:2)

LITVINOV, N.N., prof., red.; RYABOV, V.N., kand. med. nauk, red.;
KHLEBNIKOV, N.I., prof., red.; KHAMIDULLIN, R.S., red.;
CHULKOV, I.F., tekhn.red.

[Hygiene of irrigated agricultural fields; experimental hygienic research]Gigiena zemledel'cheskikh polei orosheniia; eksperimental'nye gigienicheskie issledovaniia. Moskva, Medgiz, 1962. 299 p. (MIRA 16:1)

(SEWAGE—BACTERIOLOGY) (SEWAGE IRRIGATION)
(PUBLIC HEALTH RESEARCH)

GORBOV, Vsevolod Aleksandrovich, red.; PEROTSKAYA, Antonina Sergeyevna, red.; RYABOV, Vasiliy Nikolayevich, red.; CHERNAYENKO, Tat'yana Dmitriyevna, red.; PRONINA, N.D., tekhn. red.

[Sanitary protection of soil in populated places] Sanitarnaia okhrana pochvy naselennykh mest; metodicheskoe posobie dlia sanitarno-epidemiologicheskikh uchrezhdenii. Pod red.V.A.Gorbova i dr. Moskva, Medgiz, 1963. 175 p. (MIRA 16:9)

1. Russia (1923- U.S.S.R.) Ministerstvo zdravookhraneniya. (SOILS--ANALYSIS) (SOIL POLLUTION)

RYABOV, V.P.

Electric water-level indicator for steam boilers; exchange of experience. Energ. biul. no.4:32 Ap '58. (MIRA 11:5)
(Liquid level indicators)

RYABOV, V. P.

Labor conditions of workers employed in underground well repair can be improved. Neftianik 3 no.6:13-14 Je '58. (MIRA 11:9)

1. Glavnyy energetik neftepromyslovogo upravleniya Tuymazaneft'.
(Oil wells--Equipment and supplies--Repairing)

L 18172-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3004238 S/0032/63/029/007/0824/0825

56

55

AUTHOR: Ryabov, V. P.

TITLE: Diffusion method for determination of concentration of hydrogen in gas mixtures

SOURCE: Zavodskaya laboratoriya, v. 29, no. 7, 1963, 824-825

TOPIC TAGS: pickup, palladium, hydrogen determination, diffusion

27

ABSTRACT: The capacity of hydrogen 4 to diffuse 16 selectively through palladium is the basic principle of the method used in this work. A pressure pickup, consisting of a 2 x 0.2 mm coiled palladium tube with a working surface of 30 cm^2, was encased in a box through which the gas being analyzed was passed. The palladium tube system has a volume of 100 ml and is linked to a vacuum pump as well as to a manometer, permitting the recording of pressure changes taking place in the previously evacuated tube as a result of hydrogen diffusion. The rate of hydrogen penetration into the palladium tube at atmospheric pressure and a temperature of 460C amounted to 50 ml per minute. While the box is heated to this temperature by means of an electric coil in the walls, nitrogen is passed through the box to prevent oxidation of the palladium. Experiments were conducted with gas mixtures containing (besides

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ACCESSION NR: AP3004238

hydrogen) some oxygen and nitrogen. It was found that at 460C the establishment of a partial pressure equilibrium of hydrogen between the tube and the box took from 10 to 25 minutes. The diffused hydrogen represented in this case the difference between the actual hydrogen content of the gas mixture and the one used to combine with oxygen. The accuracy of the method lies within ± 5%. Orig. art. has: 2 diagrams.

ASSOCIATION: Spetsial'noye konstructorskoye byuro analiticheskogo priborostroyeiya, Akademii nauk SSSR (Special Construction Bureau for the Design of Analytical Apparatus, Academy of Sciences, SSSR)

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: CH NO REF SOV: 001 OTHER: 004

Card 2/2

RYABOV, V.P.

Determination of hydrogen in a mixture of nitrogen oxides ly heat conductivity. Zhur.anal.khim. 19 no.9:1094-1098 '64. (MIRA 17:10)

1. Special Design Office for Analytical Instrument-Making, Leningrad.

YERSHOV, B.B.; RYABOV, V.P.; SHEYNIN, D.M.

Industrial volume-manometric gas analyzers of periodic action.
Zav. lab. 30 no.8:1023-1024 '64. (MIRA 18:3)

1. Spetsial'noye konstruktorskoye byuro analiticheskogo priborostroyeniya AN SSSR.

RYABOV, V.P.

Diffusion method for measuring the concentration of hydrogen in gaseous mixtures. Zav.lab. 29 no.7:824-825 '63. (MIRA 16:8)

1. Spetsial'noye konstruktorskoye byuro analiticheskogo priborostroyeniya AN SSSR.
(Gases--Analysis) (Metals--Hydrogen content)

RYABOV, V.P. (Leningrad)

Effect of neuropsychic factors on the dynamics of arterial pressure in practically healthy persons and some groups of patients. Trudy Gos. nauch. issl. psikhonevr. inst. 29:309-315 '63. (MIRA 17:8)

RYABOV, V.P.,

RYABOV, V.P.; GEFLIN, V.A.

Hydraulic turbine and asynchronous motor unit for emergency lighting. Energ.biul. no.10:29-30 O '57. (MIRA 10:10)
(Electric generators)

RYABOV, V.P

AUTHOR: Ryabov, V.P. 90-58-4-5/6

TITLE: Electric Signal Transmitter Indicating Water Levels in Steam Boilers (Elektrosignalizator urovnya vody parovykh kotlov)

PERIODICAL: Energeticheskiy Byulleten', 1958, Nr 4, p 32 (USSR)

ABSTRACT: The existing systems signaling water levels in steam boilers are complicated and often need intermediate relays etc. A new device has been developed by the Engineer Voskoboynikov which is simple and indicates the highest and lowest water levels. In this system (see Figure) a metal float moves vertically with the changing water level. A rod with two disc contacts is connected with this float. The proposed device is simple and easily manufactured. There is 1 figure.

AVAILABLE: Library of Congress

Card 1/1 1. Boilers-Control systems 2. Boilers-Maintenance

RYABOV, V.P.

Mounting and connecting lightning arresters on 6-10 kv. transmission lines without de-energizing. Energ.biul.no.7: 19-20 Jl '56. (MIRA 9:10)
(Lightning protection)

RYABOV, V.P. (Leningrad)

Continuous determination of the hydrogen content of complex gas mixtures by the diffusion method. Zhur. fiz. khim. 38 no.12:3031-3034 D '64. (MIRA 18:2)

SOV/92-58-6-10/30

AUTHOR: Ryabov, V.P., Chief Electrical Engineer of the NPU Tuymazaneft'

TITLE: Working Conditions of Men Reconditioning Oil Wells Can Be Improved (Usloviya truda podzemnykh remontnikov mozhno uluchshit')

PERIODICAL: Neftyanik, 1958, Nr 6, pp 13-14 (USSR)

ABSTRACT: To facilitate the job of men engaged in underground reconditioning of oil wells the Tuymazaneft' Petroleum Production Administration has developed and introduced electrically heated steam boilers of a limited capacity, mobile spotlight masts, and electric heaters for cabins where workers may rest. As a result, conditions under which the oilwell maintenance crew works at night and in winter have improved, and the productivity of labor has increased. The PEK electrically heated boiler contains a three-phase battery made of 6-in. pipes, in which tubular electrodes are installed. The operation of the above boiler is based on the principle of the ohmic water resistance induced by immersed electrodes. Steam is generated in the PEK battery by heat of the electric current. In Fig. 1 the author shows the electric system of the PEK boiler and of spotlights. In Fig. 2 he shows the design of the 2.2kwt electric heater used in cabins for workers. The maximum operating pressure of the boiler under discussion is 3 atm., and its safety valve should be set accordingly. The

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generation of steam can be determined by calculation based on the ammeter readings. The maximum steam generation capacity of the boiler is 40 - 45 kg. per hour. The boiler rests on a wooden frame mounted on a sled together with the spotlight mast. This mast of telescopic construction is made of two 2-in. or 3-in. tubes. Its maximum height is 8 m. Two movable spotlights of the PZ-35 or PZ-45 type are attached to the above mast, which is raised by a hoist. There are 2 figures.

ASSOCIATION: NPU Tuymazaneft' (Tuymazaneft' Petroleum Production Administration)

Card 2/2 1. Petroleum industry 2. Boilers—Design 3. Electric heaters—Applications 4. Personnel—Performance

RYABOV, V.P.

Connecting temporary current collectors to hot 6 kv. mains.
Energ.biul.no.12:19-21 D '55. (MLRA 9:2)
(Electric lines)

Ryabov, V. P.

AID P - 2796

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 5/13

Authors : Bakhir, Yu. V. and Ryabov, V. P.

Title : Time mercury-type relay for a selfstarting electric motor operating a deep-well pump

Periodical : Energ. byul. 8, 14-15, Ag 1955

Abstract : The authors describe a relay designed by them for selfstarting of electric motors operating deep well pumps. The picture of the device is attached, and the explanation of its operation is given in the text. It has been in use since early this year at the Tuymazy oilfield of the Bashkirskaya ASSR Petroleum Association.

Institution : None

Submitted : No date

Ryabov, V.P.

AID P - 3988

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 6/11

Author : Ryabov, V. P.

Title : Live-line tapping of Current from the Main 6 kv Power Transmission Line.

Periodical : Energ. byul., 12, 19-21, D 1955

Abstract : The author describes a very special switching device developed by the Tuymazy Petroleum Trust of the Bashkirskaya ASSR Oil Association which permits connecting temporary current collectors to main 6 kv electric power transmission line without interruption of current supply to the regular consumers, and which is capable of withstanding 100 amperes load for some time. Three drawings.

Institution : As above

Submitted : No date

RYABOV, V.R.

Second all-Union conference on the welding of dissimilar metals. Avtom. svar. 18 no.4:79-80 Ap '65. (MIRA 18:6)

RYABOV, V.R.

Combined automatic welding of spherical containers. Avtom.svar. 12 no.1:87-91 Ja '59. (MIRA 12:4)

1. Zlatoustskiy mashinostroitel'nyy zavod.
(Tanks--Welding) (Electric welding)

RYABOV, V.R., inzh.

Brazing aluminum to steel. Mashinostroenie no.6:53-56 N-D '62.
(MIRA 16:2)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.
(Brazing)

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S/125/62/000/007/001/012
D040/D113

1.2310

AUTHORS: Rabkin, D.M., and Ryabov, ~~V.R.~~

TITLE: Flash welding carbon steel to Al-Mg alloys

PERIODICAL: Avtomaticheskaya svarka, 15 no. 7, 1962, 1-7

TEXT: Joints with up to 20 Kg/mm^2 ultimate strength were obtained by argon arc welding СТ.3 (St.3) carbon steel to specimens of АМц (AMts), АМг3 (AMg3), АМг5В (AMg5V), and АМг61 (AMg61) alloys and pure aluminum, using various interlayers. Cu, Ni, Cd, Pb, Sn, Zn, Ag, brass, Mg and Zn-Al interlayers, obtained by electroplating or dipping, were tried. The best type of interlayer proved to be a combination of 6 μ thick copper and 40 μ thick zinc. The copper coating process in a pyrophosphate bath followed by zinc electroplating is described in detail. Welding was conducted with a standard УДАР-300-1 (UDAR-300-1) welder, 80-120 amp current, and 6-8 l/min argon flow. Satisfactory joints were also obtained by depositing a 20 μ thick brass interlayer with subsequent zincification. AMg 3 alloy and St.3 tubes, with 8 and 5 mm wall thicknesses respectively, were welded using the described techniques, and the welds were sound. Conclusions: (1) The obtained

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Flash welding carbon ....

data confirmed existing research data, proving that welded joints between steel and aluminum can have a sufficient strength (about 10 Kg/mm^2) equal to the strength of the aluminum, when the steel is preliminarily coated with zinc; (2) the use of combined coatings (copper + zinc) on steel, AMts filler wire, and proper welding techniques results in the obtaining of welded joints with $15 \div 20$ Kg/mm^2 ultimate strength. There are 8 figures and 1 table.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" im Ye.O. Paton, AS UkrSSR)

SUBMITTED: December 30, 1961

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